

Community Bulletin



Kelly Air Force Real Property Agency

March 2003

Kelly Off-base Cleanup Advancing

The Air Force plans to have all on and off-base groundwater cleanup systems installed and working by late 2004.

These systems will treat perchloroethylene (PCE) and trichloroethylene (TCE), solvents used to degrease engine parts, which entered the shallow groundwater when the base was active. The systems will also treat breakdown products 1, 2 dichloroethylene (DCE) and vinyl chloride. The shallow groundwater is not a source of drinking water in San Antonio, and is located 15 to 40 feet underground. It is separated from the Edwards Aquifer by 1,000 feet of impermeable clay and rock.

The Air Force has made considerable progress cleaning up the groundwater in the northern part of the base, known as Zone 5. In 2002 a permeable reactive barrier (PRB) was installed along the base's north-eastern border to treat a TCE

plume. A PRB is an underground trench filled with iron filings and placed to intercept the flow of contaminated groundwater. Contaminants carried by groundwater pass through the trench and chemically react with the iron filings, which are converted into carbon dioxide, water and the mineral chloride. PRBs clean groundwater completely underground.

Later this year, the Air Force will install a second PRB off-base to treat a PCE plume in the 34th Street area. Although this PCE plume appears to originate off-base, the Air Force will install the system to ensure this plume does not impact the effectiveness of remedies already working in the area. The Air Force is using enhanced bioremediation to clean TCE in the North Kelly area. Enhanced bioremediation injects lactate, a substance similar to vegetable oil, into the ground via wells. Microbes eat and digest the lactate, which breaks TCE down

into water, carbon dioxide, ethane and the mineral chloride.

Modeling of the East Kelly plumes shows that two PRBs and a group of extraction wells will be able to reduce them by 62 percent in five years, 99 percent in ten years, and 100 percent in 11 years. The Air Force plans to begin installing these systems later this year and complete the installation process by next fall.

Questions?

AFRPA is dedicated to involving the community in the cleanup program for the former Kelly Air Force Base. For more information on this project, please call the AFRPA Public Information Line at 210-925-0956 or visit our web site at www.kellyafb.net.

